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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/780,815	02/18/2004	Kevin M. Ferguson	7630 US 1	1492

30078 7590 03/29/2007  
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EXAMINER

LE, TOAN M

ART UNIT	PAPER NUMBER
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2863

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/29/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/780,815	<b>Applicant(s)</b> FERGUSON, KEVIN M.	
	<b>Examiner</b> Toan M. Le	<b>Art Unit</b> 2863	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 1/29/07.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-5 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The claims are directed to a judicial exception; as such, pursuant to the Interim Guidelines on Patent Eligible Subject Matter (MPEP 2106), the claims must have either physical transformation and/or a useful, concrete and tangible result. Although, the claims appear useful and concrete, there does not appear to be a tangible result claimed. Merely, acquiring the signal; defining a region of interest within the acquired signal; determining max and min values for the acquired signal within the region of interest; testing the max and min values for clipping on a display; calculating from the max and min values a gain and offset for the signal when either the max or min value clips in the testing step; and applying the gain and offset to the signal in the acquiring step would not appear to be sufficient to constitute a tangible result, since the outcome of the acquiring, defining, determining, testing, calculating, and applying steps have not been used in a disclosed practical application nor made available in such a manner that its usefulness in a disclosed practical application can be realized. As such, the subject matter of the claims is not patent eligible.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Odenheimer et al. (US Patent No. 4,743,844).

Referring to claim 1, Odenheimer et al. disclose a method of automatically setting gain and offset for the measurement and display of a signal comprising the steps of:

- acquiring the signal (col. 6, lines 24-41);
- defining a region of interest within the acquired signal;
- determining max and min values for the acquired signal within the region of interest (col. 14, lines 47-67 to col. 15, lines 1-20);
- testing the max and min values for clipping on a display (col. 15, lines 21-35);
- calculating from the max and min values a gain and offset for the signal when either the max or min value clips in the testing step (col. 15, lines 36-49); and
- applying the gain and offset to the signal in the acquiring step (col. 15, lines 50-68 to col. 16, lines 1-8; col. 17, lines 1-18).

As to claim 2, Odenheimer et al. disclose a method of automatically setting gain and offset for the measurement and display of a signal further comprising the step of reiterating the determining, testing; calculating and applying steps using the gain and offset from an immediately prior calculating step until a criterion is satisfied (col. 13, lines 26-68 to col. 14, lines 1-46).

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Referring to claim 3, Odenheimer et al. disclose a method of automatically setting gain and offset for the measurement and display of a signal wherein the criterion comprises neither max and min value clips in the testing step (col. 15, lines 21-49).

As to claim 4, Odenheimer et al. disclose a method of automatically setting gain and offset for the measurement and display of a signal wherein the criterion comprises a number of iterations equaling a specified maximum (col. 13, lines 26-68 to col. 14, lines 1-46).

Referring to claim 5, Odenheimer et al. disclose a method of automatically setting gain and offset for the measurement and display of a signal wherein when only one of the max and min values clips in the testing step only offset is calculated in the calculating step in subsequent iterations until either both max and min values clip or neither clip (col. 15, lines 21-68 to col. 16, lines 1-8).

### ***Response to Arguments***

Applicant's arguments filed 1/29/07 have been fully considered but they are not persuasive.

Referring to claims 1-5, Applicant argues that "Odenheimer et al. fails to describe the step of 'defining a region of interest within the acquired signal.' The cited reference does not teach determining max and min values for the acquired signal within the region of interest, as it fails to describe a region of interest."

Answer: Odenheimer et al. disclose "FIG. 7 is a flow chart for a program for determining the maximum and minimum peak levels of the input signal. Starting in block 150, executive microcomputer 44 determines from the history of operation of the gain adjustment algorithm of FIG. 6 whether or not the maximum (upper) peak of the waveform is small, i.e., whether it is

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between 0 and +4.75/2 divisions. If so, a binary search for a main trigger level substantially equal to the maximum peak level of the vertical amplifier output signal is performed (block 152) as previously described for the range of voltages corresponding to 0 to +4.75/2 vertical grid divisions. On the other hand, if the maximum peak of the vertical amplifier output signal is large, between +4.75 and 4.75/2.5 divisions, the binary search for the trigger level corresponding to such maximum peak is performed in that range (block 154). In block 156 executive microcomputer 44 determines from the history of operation of the gain adjustment algorithm whether or not the minimum (lower) peak of the waveform is small (in a negative sense), i.e., whether it is between 0 and -4.75/2 divisions. If so, the binary search in that range is performed (block 158). If the lower peak is large (in the negative sense), i.e., between -4.75 and -4.75/2.5 divisions, the binary search for the minimum peak is performed in that range (block 160)."

Thus, Odenheimer et al. do describe the step of 'defining a region of interest within the acquired signal.' The cited reference does teach determining max and min values for the acquired signal within the region of interest.

### *Conclusion*

#### **THIS ACTION IS MADE FINAL.**

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

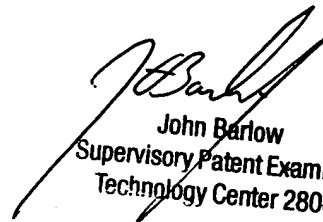
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Toan M. Le whose telephone number is (571) 272-2276. The examiner can normally be reached on Monday through Friday from 9:00 A.M. to 5:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Barlow can be reached on (571) 272-2269. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Toan Le

March 26, 2007

  
John Barlow  
Supervisory Patent Examiner  
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